

SURFICIAL GEOLOGY

STATE OF NEW JERSEY
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NEW JERSEY-NEW YORK
PASSAIC QUADRANGLE

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

LEGEND

SEDIMENTARY ROCKS
(Areas of subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles)

Qm
Made land

Qal
Recent alluvium
(in stream bottoms)

Qs
Swamp muck
(tidal flats not included)

Obs
Recent beach sand and gravel

Qd
Dunes and dune sand

Qcm
Cape May formation
(gravel and sand of marine shallow-water origin)

Qoa
Older alluvium

Qlpc
Loam and clay deposits of Lake Passaic

Qlps
Shore deposits of Lake Passaic
(stratified sand and gravel of beach and dune origin)

Shore line of Lake Passaic
(broken line indicates approximate location)

Es
Esquers
(ridges of stratified drift)

Qs
Kames, kame terraces and stratified drift of kame habit
(irregular deposits of stratified drift)

Qsd
Stratified drift

Qdr
Stratified drift and till
(undifferentiated)

Qem
Extra-moraine drift
(of late glacial age)

Qds
Drumlin and drumloids
(elongate elliptical hills or mounds)

Qr
Till
(includes areas where there is very little drift and rock exposures are numerous)

Qtm
Terminal moraine
(belt of thick drift with very irregular topography)

Qp
Pensauken formation
(sand and gravel drifts covered with till)

Qb
Bridgeton or Beacon Hill gravel

bd
Bed rock
(outside of the glacial moraine, bedrock beneath the moraine is indicated with dots)

Recent

Recent

Recent

Recent

Recent

Recent

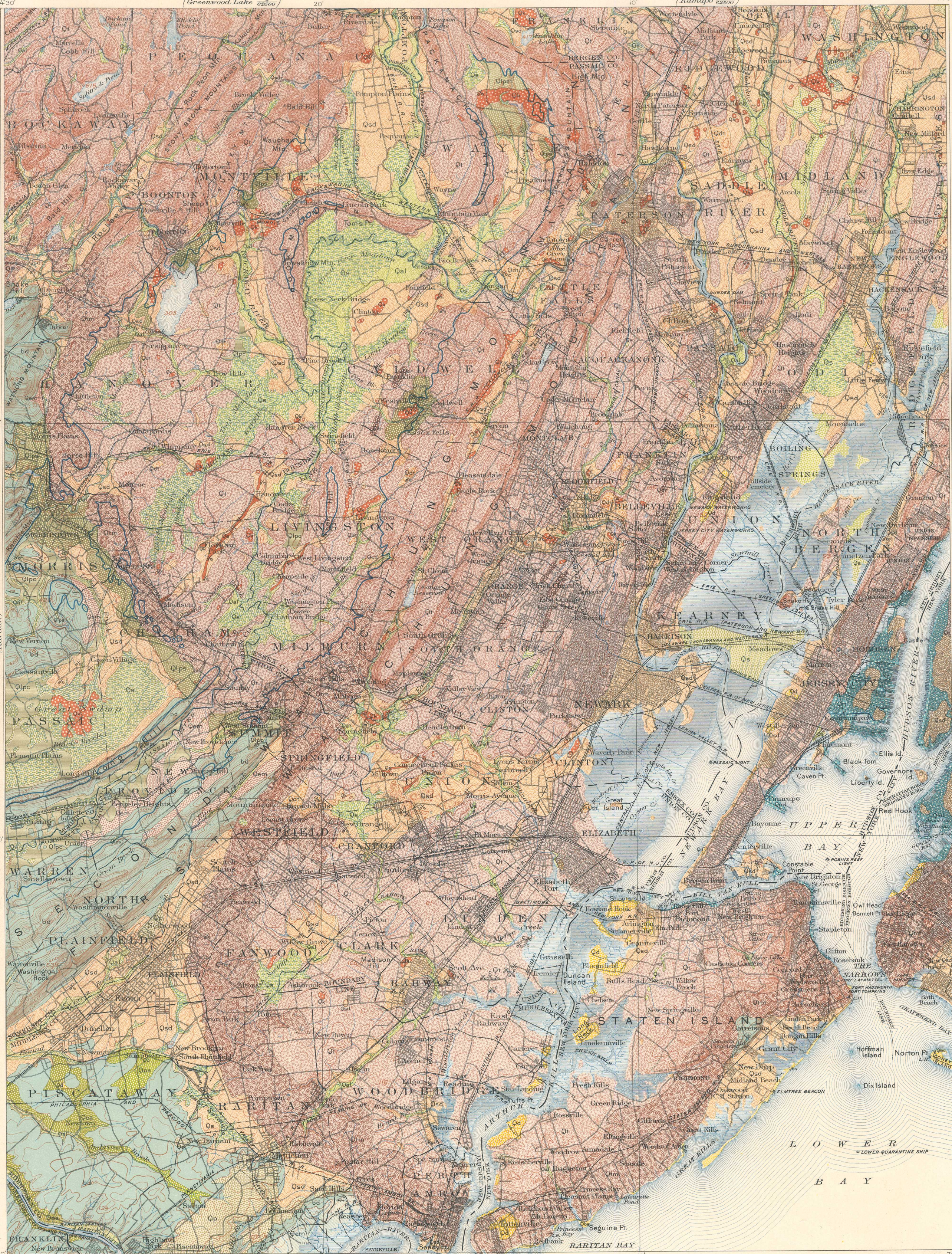
Recent

Recent

Recent

QUATERNARY

PRE-QUATERNARY



H.M. Wilson, Geographer in charge.
Triangulation by U.S. Coast and Geodetic Survey.
Topography by the U.S. Coast and Geodetic Survey.
The Geological Survey of New Jersey, S.H. Bodfish,
Frank Sutton, R.D. Cummin, E.B. Clark,
J.H. Wheat, J.W. Thom, and W.E. Horton.
Surveyed in 1887, 1889, 1897, 1899 and 1903.

N.Y. AREA SURVEYED IN COOPERATION WITH THE STATE OF NEW YORK.

APPROXIMATE MEAN
DECLINATION 1902.

Scale 1:25,000
Miles
Kilometers

Contour interval 20 feet.
Datum is mean sea level.

Edition of Mar. 1908.

Geology by Rollin D. Salisbury,
Charles E. Peet, and Henry B. Kümmel.
Surveyed in 1894-1896.

SURVEYED IN COOPERATION WITH THE STATE OF NEW JERSEY.